AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A fluid vaporizing device, comprising:

a capillary tube including an inlet and an outlet, the capillary tube being of a first material having a first resistivity;

a first electrode connected to the capillary tube;

a second electrode connected to the capillary tube closer to the outlet of the capillary tube than the first electrode, the second electrode being of a second material having a second resistivity which is (i) higher than the first resistivity at ambient temperature, and (ii) is substantially constant between ambient temperature and at least about 100°C.

2. (Original) The fluid vaporizing device of Claim 1, wherein the second material is a Ni-Cr alloy.

3. (Original) The fluid vaporizing device of Claim 2, wherein the first material is stainless steel and the Ni-Cr alloy includes 19 to 21 weight % Cr and at least 77 weight % Ni.

4. (Original) The fluid vaporizing device of Claim 1, further comprising a mouthpiece, the outlet of the capillary tube directing vaporized fluid into the mouthpiece.

5. (Original) The fluid vaporizing device of Claim 1, further comprising:

a controller; and

a sensor;

wherein the sensor detects a delivery condition corresponding to delivery of a predetermined volume of aerosol, the controller being operable to effect delivery of a predetermined volume of liquid to the capillary tube when the delivery condition is sensed by the sensor and effect passage of electrical current through the capillary tube to volatilize liquid in the capillary tube.

6. (Original) A method of vaporizing a fluid, comprising:

supplying a liquid into the capillary tube inlet of the fluid vaporizing device according to Claim 1; and

applying a voltage across the first electrode and second electrode to heat the liquid in the capillary tube to a sufficient temperature to form a vapor which exits the capillary tube through the outlet.

7. (Original) The method of Claim 6, wherein the liquid comprises a medicament.

8. (Original) A method of manufacturing the fluid vaporizing device according to Claim 1, comprising metallurgically bonding the second electrode to the capillary tube, the second electrode comprising a wire segment of a nickel-base alloy and the capillary tube comprising a section of stainless steel tubing.

9. (Original) In a fluid vaporizing device including a capillary tube including an inlet and an outlet, the capillary tube having a resistance Rc, a first electrode connected to the capillary tube, and a second electrode connected to the capillary tube closer to the outlet of the capillary tube than the first electrode, the second electrode having a resistance Re; the improvement comprising a relationship between Rc and Re such that the fluid vaporizing device has a resistance ratio Rr = Re/Rc, wherein Rr has a preset value corresponding to a preset flow rate of a liquid through the capillary tube, the preset value being at lower values when the preset flow rate is at higher values.

10. (Original) The fluid vaporizing device of Claim 9, wherein Rr is from about 0.1 to about 0.15 when the preset flow rate is about 7.5 µL/sec or less.

11. (Original) The fluid vaporizing device of Claim 9, wherein the capillary tube is a stainless steel tube and the second electrode is a stainless steel wire segment.

12. (Original) The fluid vaporizing device of Claim 9, wherein Rr is from about 0.07 to about 0.1 when the preset flow rate is greater than 7.5 µL/sec.

13. (Original) The fluid vaporizing device of Claim 9, further comprising a mouthpiece, the outlet of the capillary tube directing vaporized fluid into the mouthpiece.

14. (Original) The fluid vaporizing device of Claim 9, further comprising:

a controller; and

a sensor;

wherein the sensor detects a delivery condition corresponding to delivery of a predetermined volume of aerosol, the controller being operable to effect delivery of a predetermined volume of liquid to the capillary tube when the delivery condition is sensed by the sensor and to effect passage of electrical current through the capillary tube to volatilize liquid in the capillary tube.

15. (Original) A method of vaporizing a fluid, comprising:

supplying a liquid into the capillary tube through the inlet of the fluid vaporizing device according to Claim 9; and

applying a voltage across the first electrode and second electrode to heat the liquid in the capillary tube to a sufficient temperature to form a vapor which exits the capillary tube through the outlet.

16. (Original) The method of Claim 15, wherein the liquid comprises a medicament.

17. (Original) A method of manufacturing the fluid vaporizing device according to Claim 9, comprising metallurgically bonding the second electrode to the capillary tube, the second electrode comprising a wire segment of stainless steel and the capillary tube comprising a section of stainless steel tubing, the wire segment being sized to provide a hot resistance dependent on the preset flow rate of liquid to be supplied to the capillary tube.

18. (Original) A fluid vaporizing device for delivery of vaporized fluid, comprising:

a resistively heated capillary tube including an inlet and an outlet, the capillary tube being of material having a resistance Rc which increases as the capillary tube is heated;

a first electrode connected to the capillary tube; and

a second electrode connected to the capillary tube closer to the outlet of the capillary tube than the first electrode, the second electrode having a resistance Re which increases as the second electrode is heated,

wherein the vaporized fluid is generated by passing electrical current through a section of the capillary tube between the first and second electrodes while supplying liquid to the inlet of the capillary tube, the liquid being heated in the capillary tube and forming the vaporized fluid downstream of a meniscus at which liquid passing through the capillary tube is converted to vapor, the fluid vaporizing device having a total hot resistance Rt= Rc+ Re during delivery of the vaporized fluid, wherein Rt has a preset value effective to provide the meniscus spaced from the outlet by a predetermined distance.

19. (Original) The fluid vaporizing device of Claim 18, wherein the predetermined distance is less than about 5 mm.

20. (Original) The fluid vaporizing device of Claim 18, wherein the predetermined distance is from about 4 mm to about 14 mm when the capillary tube

has a length of at least 40 mm, and the predetermined distance is from about 2 mm to about 5 mm when the capillary tube has a length of less than 40 mm.

21. (Original) The fluid vaporizing device of Claim 18, further comprising a mouthpiece, the outlet of the capillary tube directing vaporized fluid into the mouthpiece.

22. (Original) The fluid vaporizing device of Claim 18, further comprising:

a controller; and

a sensor;

wherein the sensor detects a delivery condition corresponding to delivery of a predetermined volume of aerosol, the controller being operable to effect delivery of medicament-containing liquid to the capillary tube when the delivery condition is sensed by the sensor and effect passage of electrical current through the capillary tube to volatilize the liquid in the capillary tube.

23. (Original) A method of manufacturing the fluid vaporizing device according to Claim 18, comprising metallurgically bonding the second electrode to the capillary tube, the second electrode comprising a wire segment of stainless steel and the capillary tube comprising a section of stainless steel tubing, the capillary tube and/or second electrode being sized to provide R_t with the predetermined value, R_t corresponding to the flow rate of liquid supplied to the capillary tube.

24. (Original) A method of manufacturing fluid vaporizing devices, comprising:

a) making a first fluid vaporizing device by:

i) metallurgically bonding a first electrode to a stainless steel capillary tube, the capillary tube having a length L1, an inlet, an outlet, and a resistance Rc1; and

ii) metallurgically bonding a second electrode to the capillary tube closer to the outlet of the capillary tube than the first electrode, the second electrode having a resistance Re1;

the first fluid vaporizing device being operable to produce vaporized fluid by supplying a liquid to the capillary tube through the inlet, and applying a voltage across the first electrode and second electrode to heat the liquid in the capillary tube to a sufficient temperature to form a vapor which exits the capillary tube through the outlet; and

b) making a second fluid vaporizing device by:

i) metallurgically bonding a first electrode to a stainless steel capillary tube, the capillary tube having a length L2, an inlet, an outlet, and a resistance Rc2; and

ii) metallurgically bonding a second electrode to the capillary tube closer to the outlet of the capillary tube than the first electrode, the second electrode having a resistance Re2;

the second fluid vaporizing device being operable to produce vaporized fluid by supplying a liquid to the capillary tube through the inlet, and applying a voltage across the first electrode and second electrode to heat the liquid in the capillary tube to a sufficient temperature to form a vapor which exits the capillary tube through the outlet;

wherein the first fluid vaporizing device has a total hot resistance Rt1= Rc1 + Re1 during delivery of the vaporized fluid, and a tuning range TR1 ≥ 10 mΩ which equals the difference of a maximum hot resistance value R1max and a minimum hot resistance value R1min at which the capillary tube can be heated to produce a desired quality aerosol; the second fluid vaporizing device has a total hot resistance Rt2= Rc2 + Re2 during delivery of the vaporized fluid, and a tuning range TR2 ≥ 10 mΩ which equals the difference of a maximum hot resistance value R2max and a minimum hot resistance value R2min at which the capillary tube can be heated to produce a desired quality aerosol; the first and second fluid vaporizing devices having capillary tubes and/or second electrodes which are not identical in size, R1min and R2min are unequal, and/or R1max and R2max are unequal, the first and second fluid vaporizing devices having the same target resistance during operation thereof and the target resistance being within the range of R1min to R1max and within the range of R2min to R2max.

25. (Original) The method of Claim 24, wherein TR1 and/or TR2 is at least about 20 mΩ.

26. (Original) The method of Claim 24, wherein the capillary tubes of the first fluid vaporizing device and second fluid vaporizing device have a length of at least 20 mm.

27. (Original) The method of Claim 24, wherein the capillary tubes of the first fluid vaporizing device and second fluid vaporizing device have a length of at least 40 mm.

28. (Original) The method of Claim 24, wherein the second electrodes of the first fluid vaporizing device and second fluid vaporizing device are made of stainless steel.